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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/475,141	KUNG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kwang B. Yao	2667	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 6/7/04.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ The drawings filed on 01 September 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br/>Paper No./Mail Date <u>6/24/04; 7/14/04; 12/12/04</u></li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
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### **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance:

The present invention is directed to a two-way communication system for providing universal multimedia applications. Each independent claim identifies the uniquely distinct features: regarding claim 1, a Broadband Residential Gateway coupled to a plurality of customer premises equipment and to a Hybrid Fiber Coaxial network, a Head End Hub comprising: a Cable Modem Bank coupled to an Edge Router and to a Head End, the Edge Router, coupled to the Cable Modem Bank and to a High Speed Packet Network, wherein the Head End Hub is coupled to the Hybrid Fiber Coaxial network and to a High-Speed Packet Network, the High Speed Packet Network coupled to the Head End Hub and to an Internet Protocol Central Office, and the Internet Protocol Central Office, coupled to the High Speed Packet Network and to an external network; regarding claim 7, an Internet Protocol Central Station, coupled to the a public switched telephony network, Internet and to a plurality of Customer Premises Equipment CPE via at least one High-Speed Packet Network coupled to a Hybrid Fiber Coaxial Distribution Network, the High-Speed Packet Network having a plurality of Ultra High-speed Routers coupled to the Hybrid Fiber Coaxial Distribution Network, and the Hybrid Fiber Coaxial Distribution Network being coupled to a Broadband Residential Gateway of the CPE that interconnects a plurality of Customer Premises Equipment, wherein voice calls are transmitted over the system in packets formatted in accordance with Internet Protocol; regarding claim 11, the steps of using an Internet Protocol Central Station, coupled to the a public switched telephony network, Internet and to a plurality of Customer Premises Equipment CPE via at least one High-Speed Packet Network coupled to a Hybrid Fiber Coaxial Distribution Network, to

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encode a voice call to form EP encoded voice packets in accordance with the Internet Protocol and transmit said IP encoded voice packets on the High-Speed Packet Network using an Ultra High-speed Router coupled to the Hybrid Fiber Coaxial Distribution Network, wherein the Hybrid Fiber Coaxial Distribution Network is coupled to a Broadband Residential Gateway BRG of the CPE that interconnects a plurality of Customer Premises Equipment, and the BRG decodes the IP encoded voice packets to form a voice call and sends the voice call to a telephone; regarding claim 15, a Broadband Residential Gateway coupled to a plurality of customer premises equipment and to an Internet Protocol Capable Network, a Head End Hub comprising: a Cable Modem Bank coupled to an Edge Router and to a Head End, the Edge Router, coupled to the Cable Modem Bank and to an Internet Protocol Network wherein the Head End Hub is coupled to the Internet Protocol Capable Network and to the Internet Protocol/High Speed Packet Network, the Internet Protocol/High Speed Packet Network coupled to the Head End Hub and to an Internet Protocol Central Office, and the Internet Protocol Central Office, coupled to the Internet Protocol/High Speed Packet Network and, where selected, to an external network. The prior art, Eastep et al. (WO 98/34391), Tonnby et al. (WO 94/47127) disclose conventional communications systems, either singularly or in combination, fail to anticipate or render the above features obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

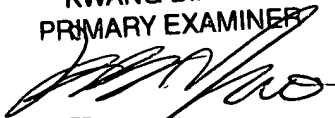
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2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO  
PRIMARY EXAMINER



Kwang B. Yao  
April 11, 2005